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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,797	07/15/2004	Eisaku Oshiman	10921.0234USWO	6594
52835 7590 01/30/2009 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER EDWARDS, LYDIA E				
ART UNIT		PAPER NUMBER		
1797				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,797

Applicant(s)

OSHIMAN ET AL.

Examiner

LYDIA EDWARDS

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-10, 12-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 12-15 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/17/2008.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/6/2008 has been entered.

Response to Arguments

Applicant's arguments, see amendment, filed 11/06/2008, with respect to the rejection(s) of claim(s) 1-6, 8-10, 12-15 and 17-19 under **35 USC 103** have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, in light of the current amendments and upon further consideration, a new ground(s) of rejection follows below.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-10 and 12-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Ogura (JP 05126792) in views of Bhullar et al. (US 6780296) and further in view of White et al. (US 5405511).

Regarding Claim 1, Ogura ('792) does not specifically disclose, wherein when an analytical tool comprising a reagent portion which is located on said projecting portion of said table outside said housing when said analytical tool is mounted onto said mounting portion;

wherein said temperature detection unit is located on said projecting portion of said table directly below the reagent portion when said analytical tool is mounted on said mounting portion.

However he does disclose a temperature detecting analytical device comprising a mounting portion for mounting an analytical tool capable of outputting information for computation, a computation unit for conducting computation for analyzing a sample based on said information for computation, and a temperature detection unit for outputting the temperature information, wherein said temperature detection unit is disposed in said mounting portion (paragraphs 19, 241 25).

The examiner acknowledges that Bhullar teaches a sensor strip being inserted in a gap of a sensor instrument. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to integrate the sensor strip into the sensor instrument forming one housing unit thus creating a mounting portion, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Bhullar ('296) teaches that the temperature sensor [32] makes contact with the bottom of the sensor strip [12] which is below the reagent portion of the analytical tool (Col 3, lines 1-5) but not directly below.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a reagent portion as taught by Bhullar placing the temperature sensor directly below the reagent portion of the analytical tool to ensure a more accurate temperature reading of said sample, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

White et al. ('511) teaches a biosensing meter wherein said analytical tool comprises a substrate separate from said mounting portion and a reagent formed on said substrate, said reagent portion being located above said projecting portion (Figure 1 and Col 3, lines 14-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a substrate separate from said mounting portion and a

reagent formed on said substrate, said reagent portion being located above said projecting portion to ensure an accurate temperature reading of said sample.

Regarding Claim 2, Ogura ('792) discloses a temperature detecting analytical device which further comprises a temperature correction unit for correcting the computation results obtained in said computation unit, based on said temperature information (paragraphs 27 and 31).

Regarding Claim 3, Ogura ('792) discloses a temperature detecting analytical device wherein said temperature detection unit comprises a contact type temperature sensor (paragraph 19).

Regarding Claim 4, Ogura ('792) discloses a temperature detecting analytical device wherein said temperature detection unit comprises a thermally conductive portion having a contact surface to be brought into contact with said temperature sensor and said analytical tool (paragraph 19).

Regarding Claim 5, Ogura ('792) does not disclose a thermally conductive portion is formed from a material with a thermal conductivity of higher than $0.10 \text{ cal}/(\text{C}^\circ\text{-cm-sec})$. Bhullar ('296) discloses a heat conducting layer that has a thermal conductivity of at least 200 W/m-K which is equivalent to $0.477 \text{ cal}/\text{C}^\circ\text{-cm-sec}$ (Col 3, lines 23-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a heat conducting layer that has a thermal conductivity of higher than $0.10 \text{ cal}/(\text{C}^\circ\text{-cm-sec})$ as taught by Bhullar to improve the overall thermal conductivity of the sensor strip.

Regarding Claim 6, Ogura ('792) does not disclose a thermally conductive portion is formed from a material with a thermal conductivity of higher than $0.15 \text{ cal}/(\text{C}^\circ\text{-cm-sec})$. Bhullar

('296) discloses a heat conducting layer that has a thermal conductivity of at least 200 W/m-K which is equivalent to 0.477 cal/(C°-cm-sec) (Col 3, lines 23-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a heat conducting layer that has a thermal conductivity of higher than 0.15 cal/(C°-cm-sec) as taught by Bhullar to improve the overall thermal conductivity of the sensor strip.

Regarding Claim 8, Ogura ('792) does not disclose wherein said temperature sensor and said thermally conductive portion are sealed with a resin package in said housing portion.

Bhullar ('296) discloses a means for laminating the heat conductive layer and an electrode substrate together of which the examiner deems analogous to sealing the temperature sensor and said thermally conductive portion together with a resin package (Col 4, lines 14-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a laminating means as taught by Bhullar in order to provide adequate support to the sensor. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to integrate the sensor strip into the sensor instrument forming one housing unit thus creating a mounting portion, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1993).

Regarding Claim 9, Ogura ('792) discloses wherein said temperature detection unit comprises a contact type temperature sensor, and the temperature sensor is disposed so as to be in direct contact with said analytical tool when said analytical tool is mounted on said mounting portion (paragraph 19 and figure 2).

Regarding Claim 10, Ogura ('792) does not disclose wherein said temperature detection unit comprises a non-contact type temperature sensor.

Bhullar ('296) discloses wherein said temperature detection unit comprises a non-contact type temperature sensor (Col 2, lines 55-63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a non-contact type temperature sensor as taught by Bhullar to provide an alternate means.

Regarding Claim 12, Ogura ('792) discloses a temperature detecting analytical device, wherein said reagent portion comprises an enzyme (paragraph 40).

Regarding Claim 13, Ogura ('792) does not disclose, wherein said enzyme has a catalytic action with respect to the oxidation reaction of glucose.

Bhullar ('296) discloses wherein said enzyme has a catalytic action with respect to the oxidation reaction of glucose (Co 15, lines 29-13; Col 6, lines 1-9; and table 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with an enzyme that has a Catalytic action as taught by Bhullar to facilitate electron transfer.

Regarding Claim 14, Ogura ('792) does not specifically disclose, wherein said analytical tool is disposable.

Bhullar ('296) discloses wherein said analytical tool is disposable (Col 6, lines 14-15 and figure 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a disposable means as taught by Bhullar to facilitate quick and accurate detection.

Regarding Claim 15, Ogura ('792) does not specifically disclose wherein said mounting portion comprises an insertion portion for inserting the end portion of said analytical tool.

Bhullar ('296) discloses wherein said mounting portion comprises an insertion portion for inserting the end portion of said analytical tool (figure 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a insertion portion as taught by Bhullar to provide an easy contact means.

Claim 17-19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura (JP 05126792) in view of Bhullar (US 6780296) in further view of White et al. (US 5405511) as disclosed above in Claim 1, in further view of Nankai et al. (US 5320732).

The rejection of Claim 1 above is relied upon.

Regarding Claim 17, neither Ogura ('792) nor Bhullar ('296) specifically disclose a push-down portion disposed in said housing for pushing said analytical tool down with respect to said table portion.

Nankai et al. ('732) discloses a push-down portion for pushing said analytical tool down with respect to said table portion is disposed in said mounting portion (figure 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a push-down portion as taught by Nankai et al. to provide an indicator of assembly.

Regarding Claim 18, Ogura ('792) does not specifically disclose push-down portion but does disclose an output unit for outputting said information for computation (Figure 1).

Bhullar ('296) does not specifically disclose push-down portion or an output unit for outputting said information for computation is used as said analytical tool.

Nankai et al: ('732) discloses a push-down portion (figure 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a push-down portion as taught by Nankai et al. to provide an indicator of assembly.

Regarding Claim 19, Ogura ('792) does not specifically disclose wherein push-down portion is an electrically conductive plate spring.

Nankai et al. ('732) discloses a push-down portion (figure 1-7).

Bhullar ('296) discloses a thermally conductive portion is formed from copper or aluminum, which are known electrical conductors (Col 3, lines 23-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ogura with a push-down portion as taught by Nankai et al. to provide an indicator of assembly and a thermally conductive portion is formed from copper or aluminum and ceramics as taught by Bhullar to improve the overall thermal conductivity of the sensor strip.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/
Examiner
Art Unit 1797

LE

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797